

PHYLLODISTOMUM ENTERCOLPIUM, A NEW TREMATODE
FROM DIEMICTYLUS PYRRHOGASTER BOIE

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ONE PLATE

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The genus *Phyllodistomum* contains trematodes found in the urinary bladders of fishes and amphibians. De Olfers in 1816 described *Distoma folium* which he found in the urinary bladders of *Esox lucius* L. Braun (1899) grouped the trematodes from the urinary bladders of fishes and frogs into the genus *Phyllodistomum* with *D. folium* as the type. Looss (1899) also revised this group using the generic name *Spathidium*.

Species have been described by Looss (1894, 1899), Odhner (1910, 1902), Stafford (1903), Pearse (1924), von Nybelin (1926) and Holl (1929). The last two papers contain keys to the species from Europe and North America respectively.

Looss 1899 divided the genus established by Braun into two genera, *Phyllodistomum* and *Gorgodera*. *Gorgodera* is thick and nearly cylindrical, while *Phyllodistomum* is flat and more or less spatulate. Looss (1902) discusses the genera of the family Gorgoderidae in which the genus is placed. As far as the author has been able to learn *P. americanum* described by Osborn (1903) is the only species known from salamanders. *P. americanum* was found in *Amblystoma maculatum* (Shaw) collected in central United States.

Phyllodistomum entercolpium was found in the urinary bladders of the salamander, *Diemictylus pyrrhogaster* (Boie), collected by Professor A. S. Pearse at Kichijoji near Tokyo. The author wishes to thank Doctor Pearse for the specimens received from him.

Phyllodistomum entercolpium new species

Phyllodistomum entercolpium has a narrow anterior region which expands into a discoidal area posterior to the acetabulum. The type is 4.29 mm. long, the anterior region being 1.7 mm. long. The width in the acetabular region is 1.04 mm., while the widest area in the posterior region is 2.89 mm. The oral sucker with a diameter of 0.529 mm. is terminal in position. The acetabulum is 0.529 mm. in diameter. The ratio of the oral sucker to the acetabulum, average for ten worms, is as 1:1.23.

The digestive system consists of an esophagus, 0.172 mm. in length and two intestinal rami which extend to 0.35 mm. from the posterior end. The rami in this species are very wavy and have many caeca.

Directly behind the acetabulum are the paired vitellaria, one on each side of the midline. The slightly lobed ovary, 0.515 by 0.472 mm., is on the left side lateral to and extending posterior to the vitellaria. In some specimens the ovary is on the right side. The oviduct arises from the dorsal surface of the ovary and extends to Mehlis' gland which is between the vitellaria. The uterus arises at Mehlis' gland and is extensively coiled. The coils of the uterus extend almost to the body wall. The uterus after coiling posteriorly reverses its direction between the vitellaria and opens into the genital sinus. The seminal receptacle is absent. Laurer's canal opens on the dorsal surface lateral to the vitellaria and on the side opposite the ovary. An average measurement of the eggs is 39 by 25 μ .

The anterior testis, 0.415 by 0.299 mm., is opposite the ovary. The posterior testis, 0.429 by 0.415 mm., is on the same side and posterior to the ovary. The vasa deferentia unite in the acetabular region to form an expanded tube which is dorsal to the uterus. This tube expands into a large cirrus sac which is filled with spermatozoa. The anterior end of the male duct becomes narrow before entering the genital sinus and is surrounded by the prostate. The uterus opens into the genital sinus posterior to the entrance of the male duct. The genital pore is between the acetabulum and the junction of the rami.

Type: In the United States National Museum, Washington, D.C.; cotypes in the Zoological Institute, Faculty of Science, Tokyo Imperial University.

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PLATE 1

EXPLANATION OF FIGURES

All figures were made with the aid of a camera lucida and from permanent mounts.

ABBREVIATIONS USED

<i>a</i> acetabulum	<i>mg</i> Mehlis' gland	<i>ph</i> pharynx
<i>c</i> cirrus sac	<i>o</i> ovary	<i>t</i> testis
<i>gp</i> genital pore	<i>os</i> oral sucker	<i>u</i> uterus
<i>i</i> intestinal rami	<i>p</i> prostrate	<i>v</i> vitellaria

1. *Phyllodistomum entercolpium*, ventral view. $\times 22$
2. Sagittal section. $\times 57$
3. Cross section. $\times 55$

PHYLLODISTOMUM ENTERCOLPIUM

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PLATE 1

